



Rev. 04/01

PATENTS
Docket No. LT-163

FW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : David C. Salerno et al.
Application No.: 10/728,021 Confirmation No.: 8333
Filed : December 3, 2003
For : METHODS AND CIRCUITS FOR PROGRAMMABLE
AUTOMATIC BURST MODE CONTROL USING
AVERAGE OUTPUT CURRENT
Group Art Unit : 2838

Mail Stop AmendmentHon.
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR
INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith is an Information Disclosure Statement in the above-identified application. This Statement is submitted:

- ☐ within three months of the application filing date;
- ☒ more than three months from the application filing date but before the mailing date of the first Office Action on the merits.

In accordance with 37 C.F.R. § 1.97, submission of this Statement requires no fee. However, if for any reason a fee is due, the Director is hereby authorized to

charge payment of any fees required in connection with this
Information Disclosure Statement to Deposit Account
No. 06-1075. A duplicate copy of this letter is
transmitted herewith.

Respectfully submitted,

Chi Hsin Chang

Chi-Hsin Chang
Registration No. 52,717
Agent for Applicants

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Lily Jiang

07-07-2004
Date of Signature



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INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98,
applicants hereby make the following documents of record in
the above identified application:*

U.S. Patents and Patent Application Publications

4,160,288	07/03/79	Stuart et al.
4,326,245	04/20/82	Saleh
4,428,015	01/24/84	Nesler
4,541,041	09/10/85	Park et al.

* With respect to cited documents other than patents,
Applicants have identified dates or possible date codes
that appear on the documents. Applicants' identification
of these dates is not an admission that the documents were
published by or on the dates identified. Applicants
reserve the right to challenge the status of any of the
cited documents as prior art.

4,610,521	09/09/86	Inoue
4,672,303	06/09/87	Newton
4,683,529	07/28/87	Bucher, II
4,754,385	06/28/88	McDade et al.
4,843,532	06/27/89	Freedman
4,884,183	11/28/89	Sable
5,134,355	07/28/92	Hastings
5,170,333	12/08/92	Niwayama
5,237,606	08/17/93	Ziermann
5,408,162	04/18/95	Williams
5,481,178	01/02/96	Wilcox et al.
5,568,044	10/22/96	Bittner
5,627,460	05/06/97	Bazinet et al.
6,307,356	10/23/01	Dwelley

Foreign Patents

3-113986	11/21/91	Japan
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Other Documents

Cassani, John C. et al.; "Sophisticated Control IC Enhances 1MHz Current Controlled Regulator Performance"; Proceedings of HFPC, May 1992, pp. 167-173.

Goodenough, Frank; "Synchronous Rectifier UPS PC Battery Life"; Electronic Design, pp. 47-52, 04/16/92.

Gracie, Paul D.; "Intermittent Converter Saves Power"; EDN, p. 151, 09/01/89.

Meakin, Mike; "The LM3578 Switching Power Regulator"; Electronic Engineering, 07/86.

National Semiconductor Corporation;
"LM1578/LM2578/LM3578 Switching Regulator"; Preliminary Datasheet, 1987.

Texas Instruments; "TPS5120 DUAL OUTPUT, TWO-PHASE SYNCHRONOUS BUCK DC/DC CONTROLLER"; Datasheet, August 2000 (revised March 2003).

Texas Instruments; TPS5130 "TRIPLE SYNCHRONOUS BUCK CONTROLLER WITH NMOS LDO CONTROLLER"; Datasheet, May 2002.

Texas Instruments; "TPS5140 FOUR-CHANNEL DC/DC CONTROLLER FOR NOTEBOOK PC POWER"; Datasheet, December 2000 (revised January 2001).

Texas Instruments; TPS43000 "MULTI-TOPOLOGY HIGH-FREQUENCY PWM CONTROLLER"; Datasheet, October 2001.

Texas Instruments; "TPS61000, TPS61001, TPS61002, TPS61003, TPS61004, TPS61005, TPS61006, TPS61007 SINGLE- AND DUAL-CELL BOOST CONVERTER WITH START-UP INTO FULL LOAD"; Datasheet, March 2000 (revised April 2003).

Texas Instruments; TPS61030, TPS61031, TPS61032 "SINGLE-CELL LI OR DUAL CELL BOOST CONVERTER"; Datasheet, September 2002 (revised February 2003).

Texas Instruments; TPS61100, TPS61103, TPS61106, TPS61107 "DUAL-OUTPUT, SINGLE-CELL BOOST CONVERTER"; Datasheet, June 2002 (revised September 2002).

Texas Instruments; TPS61120, TPS61121, TPS61122 "DUAL-OUTPUT, SINGLE-CELL LI OR DUAL CELL BOOST CONVERTER"; Datasheet, June 2002.

Texas Instruments; TPS61130, TPS61131, TPS61132 "DUAL-OUTPUT, SINGLE-CELL LI OR DUAL CELL SEPIC CONVERTER"; Datasheet, June 2002.

Texas Instruments; "TPS62000, TPS62001, TPS62002, TPS62003 TPS62004, TPS62005, TPS62006, TPS62007, TPS62008 HIGH-EFFICIENCY STEP-DOWN LOW POWER DC-DC CONVERTER"; Datasheet, September 2000 (revised June 2002).

Texas Instruments; TPS62050, TPS62051, TPS62052, TPS62054, TPS62056 "800-mA SYNCHRONOUS STEP-DOWN CONVERTER"; Datasheet, September 2002 (revised May 2003).

Texas Instruments; "Maximum Output Current of the TPS62050"; Application Report, April 2003.

Texas Instruments; "TPS6205xEVM Low-Power, DC-DC EVM for High-Efficiency, Step-Down Converters"; User's Guide, February 2003.

Texas Instruments; TPS62200, TPS62201, TPS62202, TPS62203, TPS62204, TPS62205 "HIGH-EFFICIENCY, SOT23 STEP-DOWN, DC-DC CONVERTER"; Datasheet, March 2002 (revised October 2002).

Texas Instruments; UC28023, UC28025 "ECONOMY HIGH-SPEED PWM CONTROLLER"; Datasheet, March 2003.

Uchida, Takahito; "Control Circuit for Switching Regulator," Japanese Inventor Associated Disclosed Technology Publication No. 92-2362, published 2/15/92 (in Japanese, with translation).

Unitrode; "The UC3874 is...Good to the last WATT"; Preliminary Datasheet, February 1996.

Unitrode; "Using Bipolar Synchronous Rectifiers Improves Power Supply Efficiency"; Application Note U-103, 1989-1990 Unitrode Semiconductor Databook and Application Notes, pp. 12-88 to 12-94, 6/85.

Unitrode; UCC1582, UCC2582, UCC3582 "High Efficiency Synchronous, Step Down Controller"; Advanced Information Datasheet, February 1995.

Unitrode; UCC1582, UCC2582, UCC3582 "High Efficiency Synchronous, Step Down Controller"; Preliminary Datasheet, January 1997.

Unitrode; UC1870 -1/ -2, UC2870 -1/ -2, UC3870 -1/ -2 "High Efficiency, Synchronous, Step-down (Buck) Controllers"; Datasheet, August 1998.

Unitrode; UC1846/7, UC2846/7, UC3846/7 "Current Mode PWM Controller"; Datasheet, January 1997.

Unitrode; UC1874-1,-2, UC2874-1,-2, UC3874-1,-2 "High Efficiency, Synchronous, Step-down (Buck) Controllers"; Preliminary Datasheet, January 1995.

Unitrode; UC1895, UC2895, UC3895 "Synchronous Rectifier Buck PWM Controller"; Advanced Information Datasheet, October 6, 1992.

Unitrode; UCC29421/2, UCC39421/2 Multimode High Frequency PWM Controller"; Preliminary Datasheet, October 1999.

Unitrode Products from Texas Instruments; "UCC29421, UCC29422, UCC39421, UCC39422 MULTIMODE HIGH-FREQUENCY PWM CONTROLLER"; Datasheet, October 1999 (revised April 2000).

Unitrode Products from Texas Instruments; "TPS62100, TPS62101, TPS62102, TPS62103 MULTIMODE LOW-POWER BUCK CONVERTER"; Datasheet, May 2000 (revised December 2000).

Pursuant to the PTO's waiver of the requirement under 37 CFR 1.98 (a)(2)(i), 1276 OG 55, applicants have not submitted copies of each cited U.S. patent and each U.S. patent application publication. Copies of the aforementioned foreign patent publications and documents, which are listed on the accompanying Form PTO-1449, are enclosed herewith.

It is respectfully requested that these documents be (1) fully considered by the Patent and Trademark Office during the examination of this application; and (2) printed on any patent that may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully requested.

Respectfully submitted,

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Lily Jiang
Lily Jiang

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. LT-163	SERIAL NO. 10/728,021
	APPLICANT David C. Salerno et al.	
	FILING DATE December 3, 2003	GROUP 2838

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,160,288	07/03/79	Stuart et al.			
	4,326,245	04/20/82	Saleh			
	4,428,015	01/24/84	Nesler			
	4,541,041	09/10/85	Park et al.			
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	5,568,044	10/22/96	Bittner			
	5,627,460	05/06/97	Bazinet et al.			
	6,307,356	10/23/01	Dwelley			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	3-113986	11/21/91	Japan			X	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Cassani, John C. et al.; "Sophisticated Control IC Enhances 1MHz Current Controlled Regulator Performance"; Proceedings of HFPC, May 1992, pp. 167-173.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. LT-163	SERIAL NO. 10/728,021
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	Gracie, Paul D.; "Intermittent Converter Saves Power"; EDN, p. 151, 09/01/89.
	Meakin, Mike; "The LM3578 Switching Power Regulator"; Electronic Engineering, 07/86.
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